

THE IDENTITY SYNONYMY AND DISTRIBUTION OF *Aloe Dawei* BERGER

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(With Plates XIII—XVI.)

Aloe Dawei was described by Berger in *Notizblatt Berl. Bot. Gart.* 246 (1906), from material gathered by Mr. Dawe, at that time Curator of the Botanical Gardens at Entebbe, Uganda. Berger recorded that the species occurred abundantly in the neighbourhood of Entebbe, and flowered from January to March, and also from June to September.

There are no recorded figures, while Professor G. Werdermann, Curator of the Botanical Gardens at Dahlem, Berlin, informed me that the type was not in Berlin and could not be traced. In order to establish the identity of *A. Dawei*, a personal visit to the type locality became a necessity.

On 26th April 1952, I visited Entebbe for the express purpose of investigating this species, and although I saw many plants at Hippo Bay, Lake Victoria, near Old Entebbe, none was then in flower and none had flowered shortly before that time.

A few days later I visited Kisumu, also on Lake Victoria, but in Kenya Colony, and found numbers of plants at the foot of the Nandi escarpment, but these too were not in flower then.

On 3rd August 1954, I again visited Entebbe, and then fortunately found numbers of plants of *A. Dawei* in flower at several localities near Entebbe. (Plate XIII.)

A full description was drawn up on the spot, photographs were secured, and several sheets of herbarium material prepared for various herbaria.

Five days later I visited Kisumu again and found numbers of *Aloe* shrubs in flower along the foot of the Nandi escarpment, two to four miles north-east of Kisumu on the road to Kakamega, and also for about seven miles along the road to Yala, north-west of Kisumu. (Plate XIV.) *A. Pole-Evansii* Christian then became involved.

In August 1938, specimens of this species were collected by Mr. J. Erens (on the Pole Evans Central and East African expedition) about six miles north-west of Kisumu on the road to Yala. When a young plant flowered in the gardens of the Division of Botany, Pretoria, for the first time in October–November 1939, it was figured and described in *Fl. Plants S. Afr.* 20: Plate 782 (1940) under the name *A. Pole-Evansii* Christian. The raceme figured on Plate 782 is of a young plant of modified garden growth

and is not typical of racemes of adult plants at the cited type locality of *A. Pole-Evansii*.

I studied large numbers of flowering specimens at Entebbe and near Kisumu, and found that they were clearly conspecific.

A. Pole-Evansii should, therefore, unfortunately, be reduced to synonymy under the earlier *A. Dawei*.

In the meantime another shrubby species of *Aloe*, from the Belgian Congo, had become involved, namely, *A. beniensis* described by De Wilde in *Plantae Bequaertianae* 1: 25 (1921), the type being: "Between Beni and Kasindi, 11 August 1914, J. Bequaert No. 5255—Grassy savanna amongst candelabra *Euphorbias*, shrubby, flowers red."

Beni is in the North Kivu District of the Kivu Province, lying to the West of Ruwenzori. Kasindi is the Belgian Customs post on the Uganda border, about 35 miles south-east of Beni, north of Lake Edward, south of Ruwenzori, and east of the Semliki River.

The collector, Dr. J. Bequaert, had previously informed me that he collected *A. beniensis* in August 1914 at a small native village Lisasa, about 25 kilometers north-west of Kasindi, and he kindly sent me a sketch map with notes showing the locality. Lisasa could not be traced on any large scale modern map, and if it were shown, it was west of the Semliki River, and impossible to reach by road. I could therefore neither trace nor visit the actual type locality, but I did find plants from the Semliki Valley cultivated near Mutsora (Headquarters of the Parc National Albert at the foot of Ruwenzori), and also at a native village Kalindabwika in the hills south-east of Beni. (Plate XV.) The headman was emphatic that his plants had come from the western side of the Semliki River, about half way to Kasindi, which might be somewhere near the old village of Lisasa.

These plants were flowering, and fitted the description of *A. beniensis*, but they clearly belonged to *A. Dawei*, hence *A. beniensis* also should be reduced to synonymy.

In the mandated territory of Ruanda-Urundi, I found numbers of this shrubby *Aloe* 4 miles north of Nyanza, and 28 miles north of Astrida, the mountain capital of Ruanda, but they were not flowering on 13th June 1954. Later I called on Mr. Fred L. Hendrickx, Director of the INEAC Station at Mulungu, about 22 miles north-west of Bukavu, near Lake Kivu. Mr. Hendrickx had a large number of plants from Nyanza in cultivation in his gardens at Mulungu, and many were flowering on 18th June 1954. They clearly belonged to *A. Dawei* Berger. (Plate XVI.)

The following description is based on the species as a whole, from personal observations over a wide area:

A. Dawei Berger in *Notizblatt Berl. Bot. Gart.* 4: 246 (1906), in Engler *Pflanzenr.* Liliac.-Aloin. 251 (1908).

—*A. beniensis* De Wild. in *Plant. Bequaert.* 1: 25 (1921).

—*A. Pole-Evansii* Christian in *Fl. Plants S. Afr.* 20: Plate 782 (1940).

Plant succulent (in Sect. *Prolongatae*), forming small to large shrubs, sometimes several metres across.

Stem 6—8 cm. diam., 1—2 met. long, erect or divergent, subclaxly foliate in upper half, old dried leaves persistent below, sometimes decumbent with shoots at random.

Leaves about 16—20, densely rosulate at apex of stems, basally sheathing and laxer downwards, 40—60 cm. long, 6—9 cm. broad at base, gradually tapering to the apex, youngest leaves suberectly spreading, older leaves spreading to recurved; *upper surface* flat low down, canaliculate upwards, olive-green to deep green, sometimes reddish tinged, usually without spots; *lower surface* convex, similar in colour to upper surface and mostly without dull white spots; *margins* sinuate-dentate, armed with deltoid, pungent, reddish-brown teeth averaging 3—4 mm. long (sometimes 5 mm.), 10—15 mm. distant, the interspaces usually rounded. *Sap* dries yellow.

Inflorescence an erect branched panicle 60—90 cm. high.

Peduncle plano-convex and 20—25 mm. broad at base, slenderer and terete upwards, 5—8-branched from about the middle, the lowest branch subtended at base by a broadly ovate-cuspidate bract 12—15 mm. broad, 6 mm. long, thin, scarious, with several nerves.

Racemes subdensely flowered, mostly broadly cylindric-conical, the terminal averaging 10—15 cm. long, 8 cm. diam., the lateral usually a little shorter, the youngest buds denser, suberect, grey-green tipped, older buds spreading, open flowers slightly laxer, subpendulous.

Bracts ovate-acute, thin, scarious, averaging 4 mm. long, 3—5 mm. broad at base, 3-nerved.

Pedicels averaging 14 mm., the colour of the perianth.

Perianth dull scarlet to bright reddish-scarlet, paler at mouth, cylindric-trigonous, averaging 33—35 mm. long, obtusely tapering at base to the articulation, cylindric and 8 mm. diam. across the ovary, thence trigonous and slightly narrowed on underside only, the mouth open; *outer segments* free for 12 mm., paler at the edges, 3-nerved, the apices straight, subacute; *outer segments* free but dorsally adnate to the outer for two-thirds their length, broader than the outer, with 3 congested nerves forming a scarlet keel, the apices brownish-tipped, broader, more obtuse and more spreading than the outer.

Filaments lemon, filiform-flattened, the 3 inner narrower and lengthening before the 3 outer with their *anthers* in turn exerted 3—5 mm.

Style yellow. *Stigma* at length exerted 4—6 mm.

Ovary yellowish-green, 6 mm. long, 3.5 mm. diam.

MATERIAL.

Uganda: Buganda, Mengo, near Lake Victoria, Old Entebbe, alt. 3,850 ft., fl. 3 Aug. 1954, Reynolds 7510 (PRE, K, EA.); near Airport north of Old Entebbe, fl. 3 Aug. 1954, Reynolds 7511 (PRE, K, EA.).
Kenya Colony: 5 miles north-west of Kisumu on road to Yala, alt. 3,850 ft., fl. 8 Aug. 1954, Reynolds 7513 (PRE, K, EA.); 8 miles north-west of Kisumu, fl. 8 Aug. 1954, Reynolds 7515 (PRE, K, EA.); Kisumu, Pole Evans and Erens 1650 and in National Herbarium 25,603 (PRE).

Belgian Congo: Coll. F. L. Hendrickx near Nyanza, Ruanda, cult. INEAC Station Mulungu, fl. 18 June 1954, Reynolds 7263 (PRE, K, BR.); Kivu Prov., Nord Kivu Dist., Semliki River Valley, cult. Kalindabwiki Village, 4,300 ft., fl. 28 June 1954, Reynolds 7274 (PRE, K, BR.); Oriental Prov., Kibali-Ituri Dist., near Marabu, 10 miles east of Irumu, 3,100 ft., fl. 2 July 1954, Reynolds 7279 (PRE, K, BR.).

DISTRIBUTION.

Uganda: Buganda, Mengo, near Entebbe, near the Airport, at Old Entebbe, Hippo Bay, all near Lake Victoria at about 3,850 ft.; hills near Jinja; Ankole, south bank of the Kazinga Channel, opposite the Mweya Safari Lodge, Queen Elizabeth National Park.

Kenya Colony: Plentiful along the foot of the Nandi escarpment, 2—5 miles north-east of Kisumu on road to Kakamega; abundant for 8 miles north-west of Kisumu along the road to Yala. Flowers July-August.

Belgian Congo: Ruanda-Urundi Territory: near Nyanza about 28 miles north of Astrida; Kivu Prov.; South Kivu Dist., about 4 miles north of Uvira, near Kavimvira and Lake Tanganyika, alt. 2,650 ft.; Kabe, near Lake Kivu. Kivu-North Dist.; Kashero Village, on volcanic rocks near edge of Lake Kivu 4 miles west of Goma, 4,780 ft.; in the Semliki Valley south-east of Beni, also in the Parc National Albert on the Congo-Uganda border. Eastern Province: Kibali-Ituri Dist., in the Ituri forest between Beni and Irumu; on Mbeye hill 6 miles north of Irumu; near Marabu 10 miles east of Irumu at about 3,000 ft.

When growing in small groups, stems average 1 met. and are erect. When in large thickets, stems reach 2 met. and more, especially when supported by bushes. Leaves of young shoots may be copiously white-spotted, the spots usually disappearing with age. Flowers very little in colour, but the perianth varies from copiously and very minutely white-

spotted to not at all spotted, both forms being found in the same area. Length of perianth varies from 30 mm. in weak forms to 40 mm. in robust forms, about 33—35 mm. being the average.

NATIVE NAMES.

Kenya Colony: “*Tangaratwet*” in the Nandi tongue of the Nilo-Hamitic Nandi tribe, near Kisumu. Frequently seen planted in rows demarcating fields, especially near Kisumu.

Uganda: “*Kakarutanga*” in the Lutoro tongue of the Batoro tribe of Toro, Western Province.

Belgian Congo: “*Kokorutanga*” in the Kinyoro tongue of the Banyoro, also in the Kihema tongue of the Bahema who are descended from the Banyoro of Uganda. Near Irumu, *A. Dawei* is planted around the flag-pole in a chief’s village.

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Mr. Ian Gunn, Works Supervisor of the Queen Elizabeth National Park, Uganda, for taking me across the Kazinga Channel to the locality where he had discovered large numbers of *A. Dawei*.

Mr. P. R. O. Bally, Botanist, Coryndon Museum, Nairobi, for conducting me to Entebbe in April 1952, and for much other assistance.

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Fig. 1.

PLATE XIII. *Aloe Dawei* Berger.

Fig. 1. Plants $\times 1/15$ approx., fl. 3 Aug., 1954, near
Old Entebbe, Uganda.
Fig. 2. Flowers 1/1 from bud to post-pollination stage.



Fig. 2.



FIG. 1.

PLATE XIV. *A. Daucei* Berger.



FIG. 2.

FIG. 1. Plants $\frac{1}{18}$ approx., fl. 8 Aug. 1954, 6 miles north-west of Kisumu, Kenya Colony. (*A. Pteleocarpus christiani* Christian.)

FIG. 2. Flowers $\frac{1}{1}$, gathered at random showing variation.



FIG. 1.



FIG. 2.

FIG. 1. Plants $\times 1/20$ approx., ex Semliki Valley, cult.
near Beni, Belgian Congo, fl. 28 June, 1954. (= *A.*
beniensis De Wild.)

FIG. 2. Flowers $1/1$, from bud to post-pollination stage.



Fig. 1.

PLATE XVI. *A. Dawei* Berger.



Fig. 2.

Fig. 1. Plant $\times 1/15$ approx., ex near Nyanza, Ruanda, cult. I.N.E.A.C. Station, Mulungu, north-west of Bukavu, Belgian Congo. Fl. 18 June, 1954. Collected by the Director, Mr. F. L. Hendrickx.

Fig. 2. Flowers 1/1, from bud to post-pollination stage.